

Brownfield Cleanup Grant Action Plan



Former Northville Regional
Psychiatric Hospital Property

Conestoga-Rovers & Associates

WORLDWIDE ENGINEERING, ENVIRONMENTAL, CONSTRUCTION, AND IT SERVICES

Northville Township Board of Trustees Meeting
December 15, 2011



Agenda

- **Objective**
- **Site Description/Background**
- **Site Investigation**
- **Evaluation and Findings**
 - **Physical Safety**
 - **Environmental**
 - **Salvageable Steel**
- **Conclusions and Recommendations**
- **Public Comment and Next Steps**
- **Closure and Discussion**



Objective

- Define scope of cleanup activities (Cleanup Action Plan) feasible for accomplishment using Grant funds
- Cleanup Action Plan prepared with consideration for:
 - Physical Safety
 - Environmental
 - Salvageable Steel
- Provide recommended Cleanup Action Plan strategy for public comment



Site Description/Background

- 334 acres located on southwest corner of 7 Mile Road and Haggerty Road
- 20 structures (~1 million SF) constructed between 1948 and 1979
 - Main hospital complex, Powerhouse, Maintenance, Services, Activities Center, dormitories, etc.
- Operated as Northville Regional Psychiatric Hospital from 1952 - 2003
- Since 2003, generally abandoned



Site Description/Background

- Purchased by Northville Township residents in 2009 for redevelopment for largely recreational use
- Awarded Brownfield Cleanup Grant from U.S. EPA in June 2011
 - \$200,000 grant with required 20% cash or in-kind match
- CRA retained in October 2011 to assist in project planning, environmental engineering, and Grant administration



Site Investigation

- Reviewed current environmental investigation reports
 - Phase I ESAs
 - Phase II ESAs
 - BEAs
 - Asbestos Surveys
- Site Inspection for safety, environmental, and scrap salvage considerations



Site Investigation

- Physical safety
- Environmental
 - Subsurface soil (currently low priority)
- Salvageable steel



Evaluation and Findings:

Environmental

- Asbestos Containing Materials (ACM)
- Mold
- Universal Wastes
- Refrigerants
- Misc. Containers/Wastes
- Equipment Oils
- Painted Surfaces
- Potentially Impacted Building Materials



Evaluation and Findings:

Environmental

Potentially Impacted Building Materials

- Document review did not identify building materials sampling
- Site inspection identified some risk of impacts due to spills
- Building materials include concrete, block/brick, window caulk, expansion joints, paint, etc.
- Sampling may be prudent to define material cleanup and management requirements



Evaluation and Findings: Environmental

Potentially Impacted Building Materials



Evaluation and Findings:

Salvageable Steel

- Evaluated based on building construction, square footage, and professional experience
- Powerhouse steel framing plan used to estimate tonnage in Powerhouse (~200 tons)
- Steel market value fluctuates, historically spring/summer yields highest returns



Conclusions and Recommendations

- Key Factors in Developing the Cleanup Action Plan
 - Public Safety
 - Human health and the environment
 - Maximum returns on cleanup efforts (salvageable steel)
 - Grant limitations



Conclusions and Recommendations

- CRA recommends cleanup activities using Grant funds target the Powerhouse



Conclusions and Recommendations

- Highly accessible to trespassers, located near southern property boundary
- Unique structure that may attract trespassers
- High elevations
- Poor ACM condition
- Other environmental concerns (mercury switches, oils, etc)
- Potential for highest scrap salvage return per square foot of structure (stainless steel stacks, boilers, heavy gauge steel framing, no spray-on ACM)



Conclusions and Recommendations

- Recommend contracting cleanup (primarily asbestos abatement) and selective demolition activities together
- Maximize scrap returns
- Minimize multi-phase contracting costs
- Scrap revenue may off-set much of the cleanup (abatement) costs, allowing cleanup of a second structure



Conclusions and Recommendations

- CRA recommends the second structure targeted be the Maintenance Building
 - Signs of trespasser activities (fires)
 - Few environmental complications, low cleanup/demo cost



Conclusions and Recommendations

- Why not other structures at this time?
 - Lower physical safety and/or environmental risk
 - Asbestos abatement costs higher (largely due to spray-on insulation)
 - Reinforced concrete building construction yields lower salvageable scrap returns
 - Grant funds limit feasible cleanup (cost/benefit)



Public Comment and Next Steps

- Cleanup Action Plan Memo and this presentation available on Northville Twp website (www.twp.northville.mi.us)
- Online comments welcome until January 31, 2012 via online submission, mail, or phone
- Comment responses will be posted online in February 2012
- Cleanup Action Plan will be finalized based on comments received



Public Comment and Next Steps

- Contractor scope of work, specifications, and contract documents will be developed based on the final Cleanup Action Plan
- Contractor procurement in Spring 2012
- Implementation of cleanup/demolition in Spring/Summer 2012



Closure and Discussion

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